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The *Greenidea* aphids of Taiwan (Homoptera : Aphididae) [1]

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Abstract : Twelve species belonging to genus *Greenidea* Scht. are reported in this paper and one new subgenus *Metagreenidea* is erected. There are *Greenidea* (*Paragreenidea*) *viticola* Tak., *G.* (*Trichosiphum*) *formosana* (Maki), *G.* (*T.*) *kuwanai* (Perg.), *G.* (*T.*) *myricae* Tak., *G.* (*T.*) *nigra* (Maki), *G.* (*Metagreenidea*) *brideliae* Tak., *G.* (*M.*) *quercifoliae* Tak., *G.* (*M.*) *schimae* Tak., *G.* (s. s.) *decaspermi* Tak., *G.* (s. s.) *ficicola* Tak., *G.* (s. s.) *mangiferae* Tak. and *G.* (s. s.) *mushana* Tak.

Genus *Greenidea* was erected by Schouteden in 1905. He characterized the genus according to its body and siphunculus with strong setae, and the shape of siphunculus and cauda. P. van der Goot (1917) and R. Takahashi (1929, 1931) gave a more specific definition to the genus, they defined the genus for species with a conical processus on the apex of cauda. D. N. Raychaudhuri (1956) also studied the genus in more detail and he found subgenus *Paragreenidea* besides the subgenus *Trichosiphum* which was erected by Pergande. However D. N. Raychaudhuri, M. R. Ghosh, M. Banerjee and A. K. Ghosh erected another subgenus *Neogreenidea* in 1973.

In this paper, I study the Taiwan *Greenidea* and found the body of nymphs of *G. quercifoliae* and *G. schimae* are all scarcely sclerotized except their abdominal dorsum, they are distinctively different from the other species of *Greenidea*. Consequently, I would like to erect the subgenus *Metagreenidea* for classifying these species.

Up to date, 12 species of *Greenidea* have been recorded in Taiwan. They are redescribed by Raychaudhuri (1956) except *G. mushana* which was only briefly recorded in the original description of Takahashi (1925). So *G. mushana* is redescribed in this paper but only main charaters are given for the other 11 species. The name *psidii* van der Goot recorded in Aphid Fauna of China (1932) should be corrected as *formosana* Maki.

All material used in this study are from the collection of Taiwan Agricultural Research Institute (TARI), they were all mounted in slides. For convenience, some symbols are used in this paper, "W" stands for alate viviparous female, "A" and "N" for apter-

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ous viviparous female and nymph, respectively. All measurement of specimens are in mm.

Genus **Greenidea** Schout., 1905

Greenidea Schouteden, 1905. Spolia Zeylan. 2 (8) : 181. Type : *Siphonophora artocarpi* Westwood, 1890, Trans. Ent. Soc. Lond., 4 : 649.

Trichosiphum Pergande, 1906. Ent. News Philad. 17 : 207. Type : *Trichosiphum anonae* Pergande, 1906. Ibid.

Key to the subgenus of *Greenidea* in Taiwan

1. Hind tibiae in aptera and alata with hardly developed stridulatory ridges, antennal setae on all sides of 3rd antennal joint long, fine, wavy and similar in length ; nymph with scattered sclerites on dorsal. ..... *Paragreenidea*
   All tibiae either smooth or normally imbricated, antennal setae stiff, those on the inner side of 3rd joint are longer, thicker and more numerous than those on the outer side 3
2. Nymphs of alata and aptera with siphunculus and dorsum scarcely sclerotized, without sclerites on abdomen dorsally ..... *Metagreenidea* nova
   Nymphs of alata and aptera with siphinculus and dorsum sclerotized, with many scattered sclerites on abdomen dorsally 4
3. Siphunculus in aptera with spinules situated almost all over of its length, reticulations occur at its very base and some faint striae may present on the rest part ..... *Trichosiphum*
   Siphunculus in aptera almost entirely reticulated except the apex where is densely spinulose, some scattered spinules may present on the lines of reticulation ..... *Greenidea* (s. s.)

Subgenus **Paragreenidea** Raychaudhuri

Paragreenidea Raychaudhuri, 1956. Zool. verh. 31 : 61. Type : *Greenidea viticola* Takahashi, 1929. Trans. Nat. Hist. Soc. Formosa 19 (100) : 93.

1. **Greenidea (Paragreenidea) viticola** Takahashi, 1929 (Fig. 1 C)
   Greenidea viticola Takahashi, 1929, Trans. Nat. Hist. Soc. Formosa 19 (100) : 98.
   Greenidea (*Paragreenidea*) *viticola* : Raychaudhuri, 1956. Zool. verh. 31 : 61.

Tibiae of aptera and alata with transversal ridges ; antennal setae on all sides of 3rd antennal joint long, fine, wavy and all about same length ; siphunculus of aptera dark brown, paler toward apex, almost cylindrical, curved outwards, with strong reticulation present over entire length except apical portion where spinules present in transversal rows.

Measurements : "A"—body length : 2.93—2.98 ; antennal segments : I, II, III, IV, V, VI=0.13—0.14, 0.10—0.13, 0.98—1.02, 0.38—0.45, 0.37—0.43, 0.32—0.33+0.59—0.61 ; 4+5 rostral segment : 0.18—0.20 ; siphunculus : 1.60—1.66. "W"-body length : 3.07 ; antennal segment : I, II, III, IV, V, VI=0.12, 0.12, 1.01, 0.43, 0.44, 0.31+0.65 ; 4+5 rostral segment : 0.16—0.19 ; siphunculus : 2.12.

Host plant : *Vitis cantonensis.*

Specimens : 1 W (Takahashi's type) , IX—1928, Suishe (=Suisha), R. Takahsahi ; 2 W, 7 A, 13 N, Suishe, 2—X—1929, R. Takahashi.

Subgenus **Trchosiphum** Raychaudhuri

Trichosiphum Raychaudhuri, 1956. Zool. Verh. 3I : 6I. Type : *Trichosiphum anonae* Pergande, 1906. Ent. News Philad., 17 : 208.

Key to species of subgenus *Trichosiphum* (adult apterous viviparous female)

1. Dorsal setae numerous, evenly distributed, more than 30 in number on each of 2nd -6th abdominal segment. Rostral 4+5 joint longer than the base of 6th antennal joint.. ·····2
   Dorsal setae not more than 25 in number on each of 2nd -6th abdominal segment. Rostral 4+5 joint shorter than the base of 6th antennal joint·····3
2. Antenna about 0.50-0.55 times as long as body, with 4th joint shorter than 5th joint·····*nigra*
   Antenna about 0.75 times as long as body, with 4th joint subequal to 5th joint·····*kuwanai*
3. Siphunculus about 2.5-3.0 times as long as 3rd antennal joint ·····*formosana*
   Siphunculus about 1.3-1.5 times as long as 3rd antennal joint·····*myricae*

2. **Greenidea (Trichosiphum) formosana** (Maki), 1916 (Fig. 1 D)

Trichosiphum formosana Maki, 1916. Call. Essays for Nawa, Gifu : 13.
Greenidea psidii van der Goot, 1917. Contrib. Faune Indes Neerl. 1(3) : 138.
Greenidea formosana : Takahashi, 1921. Agr. Exp. St. Formosa Spec. Rept. 20 : 63—68.
Greenidea eugeniae Takahashi, 1941. Ins. Mats. 15(4) : 146.

Siphunculus of aptera with strong reticulation on basal portion and with spinules present over entire length but denser on distal $\frac{1}{4}$. Secondary rhinaria on 3rd antennal joint of alata arrange not in a row.

Measurements : "A"—body length : 2.08—0.18 ; antennal segments : I, II, III, IV, V, VI=0.08—0.10, 0.06—0.07, 0.39—0.48, 0.26—0.29, 0.26—0.33, 0.23—0.25+0.53—0.60 ; rostral 4+5 segment : 0.20—0.23 ; siphunculus : 0.66—0.79. " W"—body length : 2.13—2.47 ; antennal segments : I, II, III, IV, V, VI=0.10, 0.06—0.17, 0.62, 0.29—0.30, 0.34, 0.28—0.30+0.64—0.65 ; rostral 4+5 segment : 0.26 ; siphunculus : 1.48—1.57.

Host plants : *Ficus retusa, Ficus wightiana* and *Ficus* sp.

Specimens : 14 A, 7 N, Taipei (=Taihoku), IV—1920, R. Takahashi ; 4 A, 1 N, Tai pei, 24—I—1921, R. Takahashi ; 4 A, 4 N, Taipei, 3—VI—1922, R. Takahashi ; 6A, 14 N, Chiayi (=Kagi) 28—V—1934, R. Takahashi.

3. **Greenidea (Trichosiphum) kuwanai** (Pergande), 1906 (Fig. 1 E)

Trichosiphum kuwanai Pergande, 1906. Ent. News, Philad. 17 : 209.
Greenidea kuwanai : Takahashi, 1919. Proc. Ent. Soc. Wash. 21 (7) : 174.

Siphunculus of aptera with spinules present over entire length, and with distinctive reticulation occur at basal portion. Dorsal seta of alata and aptera numerous. Secondary rhinaria on 3rd antennal joint of alata arrange in a row.

Measurements : "A"—body length : 2.06—2.85 ; antennal segments : I, II, III, III, IV, V, VI=0.11—0.13, 0.07—0.08, 0.59—0.64, 0.21—0.25, 0.21—0.23, 0.16—0.18+0.32—0.37 ; rostral 4+5 segment : 0.23—0.24 ; siphunculus : 0.67—0.71. "W"—body length : 2.83—3.05 ; antennal segments : I, II, III, IV, V, VI=0.10—0.11, 0.07—0.08, 0.64—0.76, 0.22—0.26, 0.21—0.24, 0.17—0.20+0.31—0.33 ; rostral 4+5 segment : 0.25 ; siphunculus : 1.45—1.64.

Host plants : *Quercus glauca*, *Q. stenophylloides* and *Q.* sp.

Specimens : 1 W, 3A, 4N, Tung-shih (=Tosei), XI—1926, R. Takahashi ; 10 A, 8 N, Taipei(=Taihoku), 3—V—1926, R. Takahashi ; 10 A, 6 N, Taipei, 16—V—1932, R. Takahashi ; 1 W, 3A, 12N, Taipei, 24—V—1933, R. Takahashi ; 1 W, 2 A, 10N, Taipei, 12—VIII—1934, R. Takahashi ; 2 A, Lishan (=Saramao), 12—VIII—1934, R. Takahashi.

4. **Greenidea (Trichosiphum) myricae** Takahashi, 1925 (Fig. 1 F)

Greenidea myricae Takahashi, 1925. Dept. Agr. Res. Inst. Formosa, Rept. 16 : 31.

Siphunculus of aptera brown, with darker apex, with strong reticulation present on basal portion, and with spinules scatter nearly over entire length but more densely so on apicad. Secondary rhinaria on 3rd antennal joint of alata arrange in a row.

Measurements : "A"—body length : 2.54—2.68 ; antennal segments : I, II, III, IV, V, VI=0.06—0.11, 0.07—0.08, 0.52—0.54, 0.28—0.30, 0.30—0.32, 0.26—0.27+0.60—0.61 ; rostral 4+5 segment : 0.24 ; siphunculus : 0.68—0.84. "W"—body length : 2.29 ; antennal segment : I, II, III, IV, V, VI=0.10, 0.09, 0.72, 0.37, 0.35, 0.27+0.61 ; siphunculus : 1.90.

Host plant : *Myrica rubra.*

Specimens : 15 A, 4 N, Sungkang (=Tattaka), 17—V—1924, R. Takahashi.

5. **Greenidea (Trichosiphum) nigra** (Maki), 1916 (Fig. 2 A)

Trichosiphum nigrum Maki, 1916. Call. Essays for Nawa, Gifu 10.

Greenidea nigra : Takahashi, 1921. Agr. Exp. St. Formosa, Spec. Rept. 20 : 65.

Siphunculus of aptera dark brown, with spinules situated nearly over entire length but denser and forming transversal rows on apicad, without strong reticulation on basal portion. Secondary rhinaria on 3rd antennal joint of alata arrange in a row.

Measurements : "A"—body length : 2.91—3.39 ; antennal segments : I, II, III, IV, V, VI=0.13—0.14, 0.03—0.09, 0.69—0.71, 0.11—0.13, 0.18—0.19, 0.13—0.17+0.25—0.29 ; rostral 4+5 segment : 0.39—0.41 ; siphunculus : 0.93—1.01 ; "W"—body length : 2.56 ; antennal segments : I, II, III, IV, V, VI=0.11, 0.08, 0.69, 0.23, 0.25, 0.20+0.33 ; rostral 4+5 segment : 0.22 ; siphunculus : 1.63.

Host plants : *Lithocarpus rhombocarpa*, *Quercus formosana* and *Q.* sp.

Specimens : 29 N, Taoyuan (=Toyen), XII—1913, Maki ; 1 A, 1N, Suishe (=Suisha), IX—1928, R. Takahashi ; 11 A, 5 N, Suishe, 2—X—1929, R. Takahashi ; 8 A, 4 N, Yushih (=Miharashi), 22—III—1934, R. Takahashi ; 2A, Yushan (=Mt. Niitaka), 23—VII—1936, R. Takahashi ; 1 W, 4 A, 23N, Chishan (=Kizan), VII—1936, R. Takahashi.

Subgenus **Metagreenidea** nova.

Type : *Greenidea brideliae* Takahashi

Key to species of subgenus *Metagreenidea* nova (adult apterous viviparous female)

1. Base of 6th antennal joint longer than 4th antennal joint ..... *quercifoliae*
   Base of 6th antennal joint shorter than 4th antennal joint 2
2. 3rd antennal joint about 6.5 times as long as 4+5 joint of rostrum ..... *schimae*
   3rd antennal joint about 3.5-4.0 times as long as 4+5 joint of rostrum ..... *brideliae*

6. **Greenidea (Metagreenidea) brideliae** Takahashi, 1928 (Figs. 1 B, 2 B).
   Greenidea brideliae Takahashi, 1928. Trans. Nat. Hist. Soc. Formosa 18(94) : 46.
   Greenidea (s. s.) *brideliae* : Raychaudhuri, 1956. Zool. verh. 31 : 31.

Siphunculus of aptera light brown, almost cylindrical, with faint striation extending over entire length, and with spinules densely arranging in transversal rows on apical portion and sparsely scattered on rest portion.

Measurements : "A"—body length : 2.35—2.45, antennal segments : I, II, III, IV, V, VI=0.10, 0.07—0.08, 0.52—0.58, 0.25—0.28, 0.31—0.34, 0.24—0.26+0.68—0.77 ; "W"—body length : 1.72 ; antennal segments : I, II, III, IV, V, VI=0.03, 0.07, 0.45, 0.20, 0.26, 0.20+0.50 ; rostral 4+5 segment : 0.13 ; siphunculus : 1.29.

Host plant : *Bridelia mononica.*

Specimens : 9 A, 1 N, Chiayi (=Kagi), 24—IV—1928, R. Takahashi ; 1 W, 10 A, 10 N (Takahashi's type), Houli (=Kori), 2—X—1927, R. Takahashi.

7. **Greenidea (Metagreenidea) quercifoliae** Takahashi, 1921.
   Greenidea quercifoliae Takahashi, 1921. Agr. Exp. St. Formosa, Spec. Rept., 20 : 64.
   Greenidea (s. s.) *quercifoliae* : Raychaudhuri, 1956. Zool. verh. 31 : 38.

Base of 6th antennal joint of aptera longer than 4th antennal joint.

Host plant : *Quercus variabilis.*

Specimens : 13 N, Taipei (=Taihoku), 13—IV—1931, R. Takahashi.

8. **Greenidea (Metagreenidea) schimae** Takahashi, 1929
   Greenidea schimae Takahashi, 1929. Trans. Nat. Hist. Formosa, 19 (105) : 528.
   Greenidea (s. s.) *schimae* : Raychaudhuri, 1956. Zool. verh. 31 : 42.

3rd antennal joint about 6.5 times as long as 4+5 segment of rostrum.

Host plant : *Schimae* sp.

Specimens : 7 N, Suishe (=Suisha), 23—V—1929, R. Takahashi.

Subgenus **Greenidea** (s. s.)

Type : *Siphonophora artocarpi* Westwood, 1890. Trans. Ent. Sos. Amer. 43 (4) : 587

Key to species of subgenus *Greenidea* (S. S.) (adult apterous viviparous female)

1. Sternum evenly scattered with spinules ..... *decaspermi*
   Sternum spinulose marginally and anteriorly 2

2. Siphunculus with strong reticulation present nearly over the entire length and with spinules arrange in transversal rows on apical portion. The base of 6th antennal joint subequal to 3rd antennal joint ..... *mangiferae*

Siphunculus with strong reticulation present on the basal 6/7 and with spinules present over the entire length but denser on apical portion ..... *ficicola*

Note : Up to date, no specimens of apterous viviparous female of *G. mushana* has been collected or described.

9. **Greenidea** (s. s.) **decaspermi** Takahashi ; 1933 (Figs. 1 A, 2 C)

Greenidea decaspermi Takahahsi, 1933. Philipp. J. Sci. 52 (3) : 294.

Aptera and alata with sternum evenly spinulose. Siphunculus of aptera dark brown, distinctly dilated at middle portion of inner side, somewhat curved outwards, with spinules densely arrange in transversal rows on its apical 1/3 and sparsely scatter on rest portion ; and with strong reticulation present at base, some distinctive striation occur on rest part.

Measurement : "A"—bdoy length : 1.79—2.02 ; antennal segment : I, II, IIII, V, V, VI =0.03—0.10, 0.03—0.07, 0.40—0.42, 0.22—0.25, 0.23—0.24, 0.24—0.26+0.46—0.52. "W" —body length : 2.17—2.19 ; antennal segments : I, II, III, IV, V, VI=0.11—0.14, 0.03—0.09, 0.68—0.74, 0.36—0.41, 0.35—0.41, 0.30—0.31+0.54—0.55 ; rostral 4+5 segment : 0.21 ; siphunculus : 1.66—1.96.

Host plant : *Decaspermum fruticosum.*

Specimens : 1W, 2A, 24 N (Takahashi's type), Taipei (=Taihoku), 24—IV—1933, R. Takahashi ; 2 A, 3N, Suishe (=Suisha), 11—VI—1933, R. Takahashi.

10. **Greenidea** (s. s.) **ficicola** Takahashi, 1921 (Fig. 2 D)

Greenidea ficicola Takahashi, 1921. Agr. Exp. St. Formosa, Spec. Rept. 20 : 66.

Siphunculus of aptera with srong reticulation present over entire length and with spinules scatter over entire length but more conspicuously and densely so on distal portion.

Measarement : "A"—body length : 2.07—2.14 ; antennal segments : I, II, III, IV, V, VI=0.10, 0.06—0.07, 0.42—0.50, 0.25—0.31, 0.29—0.35, 0.21—0.26+0.48—0.63 ; "W"—body length : 2.32 ; antennal segments : I, II, III, IV, V, VI=0.11, 0.08, 0.68, 0.35, 0.40, 0.30+0.65 ; rostral 4+5 segment : 0.26 ; siphunculus : 1.31.

Host plants : *Ficus obscura* and *F. retusa.*

Specimens : 2 A, Taipei (=Taihoku), 23—IV—1920, R. Takahashi ; 2 A, Taipei, III—1929, R. Takahashi ; 1 W, 3 A, 3N, no collecting data.

11. **Greenidea** (s. s.) **mangiferae** Takahashi, 1925 (Fig. 2 E)

Greenidea mangiferae Takahashi, 1925. Dept. Agr. Res. Inst. Formosa, Rept., 16 : 33.

Siphunculus of aptera light brown, darker on distal 1/3, a little dilated on inner side of middle portion, curved outwards ; with spinules densely situated in transversal rows on apical portion and sparsely scattered over rest part, and with strong reticulation extending over basal 7/8.

Measurements : "A"—body length : 2.06—2.37 ; antennal segments : I, II, III, IV,

V, VI=0.10—0.11, 0.07, 0.52—0.59, 0.30—0.35, 0.31—0.36, 0.25—0.30+0.52—0.58 ; rostral 4+5 segment : 0.20 ; siphunculus : 0.79—0.83 ; "W"—body length : 3.17—2.20 ; antennal segments : I, II, III, IV, V, VI=0.10—0.11, 0.08, 0.66—0.69, 0.38—0.39, 0.38—0.39, 0.30—0.32+0.73—0.76 ; rostral 4+5 segment : 0.18 ; siphunculus : 1.52—1.70.

Host plants : *Euphoria longana* and *Mangifera indica.*

Specimens : 3W, 10 A (Takahashi's type), Chiayi (=Kagi), III—1925, R. Takahashi ; 1 W, 9 N, Chuchi (Takezaki), 20—IV—1928, R. Takahashi.

12. **Greenidea** (s. s.) **mushana** Takahashi, 1925 (Fig. 2 F)

Greenidea mushana Takahashi, 1925. Dept. Agr. Res. Inst. Formosa, Rept. 16 : 35.

Redescription : (Alate viviparous female) —Body elongtaed. Tergum sclerotised, dark brown, wrinkle ; sternum evenly and densely scattered with spinules. Both long and short dorsal setae occur on abdomen, long setae on abdomen are subequal in length to those on thorax and head. Abdominal dorsal setae exceedingly numerous, scattered evenly, those on 3rd abdominal segment more than 80 in number. Long setae on thorax (ca. 0.25mm) about 5 times as long as basal width of 3rd antennal segment. Antenna dark brown, about 0.80 times as long as body, 4th to 6th segments deeply imbricated ; 3rd segment situated with 56 secondary rhinaria arranging not in a row ; 6th joint with processus terminalis about 2 times as long as its base. The ratio of 3rd to 6th antennal segments about as follows : III : IV : V : VI=3.28 : 1.28 : 1.22 : 1.00+1.94. Rostrum reaching between middle and hind coxae. Siphunculus dark brown, with pale base, cylindrical, curved outwards ; with strong reticulation present almost through entire length except apical portion where spinules present densely and forming transversal rows. Siphunculus about 1.21 times as long as hind tibiae and 2.45 times as long as 3rd antennal joint. Femora brown, partly imbricated, tibia brown, with darker apex, nearly smooth ; tarsus deeply imbricated, dark brown.

This specimens is different from alatae of other *Greenidea* by that : (1) secondary rhinaria on 3rd antennal joint so numerous and transversally oval in shape ; (2) dorsal setae evenly distributed and numerous ; (3) sternum spinulose evenly.

Measurements : Body length : 3.90 ; antennal segments : I, II, III, IV, V, VI=0.17, 0.09, 1.06, 0.41, 0.39, 0.32+0.62, rostral segment : 0.34 ; siphunculus : 2.60.

Host plant : *Quercus* sp.

Specimens : 1W (Takahashi's type), Sungkang, altitude ca. 7330 ft. (=Tattaka), 17—V—1924, R. Takahashi.

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臺灣毛管蚜屬 (*Greenidea*) 蚜虫[1]

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摘 要

臺灣產毛管蚜屬(*Greenidea*)已有記錄者 12 種，本文重新描述 *G. mushana* 有翅胎生雌蟲之形態，其他 11 種則記述其主要特徵，並記載其異名、寄主及分佈。該屬最早由 D. N. Raychaudhuri (1956) 分爲 *Paragreenidea, Trichosiphum* 及 *Greenidea* 三個亞屬，後 D. N. Raychaudhuri, M. R. Ghosh, M. Banerjee 及 A. K. Ghosh 增訂一亞屬 *Neogreenidea*；筆者因發現 *G. brideliae, G. quercifoliae* 及 *G. schimae* 之稚蟲體背不具骨片，有異於同屬其他種類之稚蟲，故擬再增設一新亞屬 *Metagreenidea* 。中國蚜蟲誌中記載之 *G. psidii* 應訂正爲 *G. formosana*。

本文記載之 12 種蚜蟲學名分別爲，*Greenidea* (*Paragreenidea*)*viticola* Tak., *G.* (*Trichosiphum*) *formosana* (Maki), *G.* (*T.*) *kuwanai* (Perg.), *G.* (*T.*) *myricae* Tak., *G.* (*T.*) *nigra* (Maki), *G.* (*Metagreenidea*) *brideliae* Tak., *G.* (*M.*) *quercifoliae* Tak., *G.* (*M.*) *schimae* Tak., *G.* (s. s.) *decaspermi* Tak., *G.* (s. s.) *ficicola* Tak., *G.* (s. s.) *mangiferae* Tak. and *G.* (s. s.) *mushana* Tak.

1. 臺灣省農業試驗所 研究報告 第 854 號。本論文經獲行政院國家科學委員會獎助。

2. 本所應用動物系技佐。

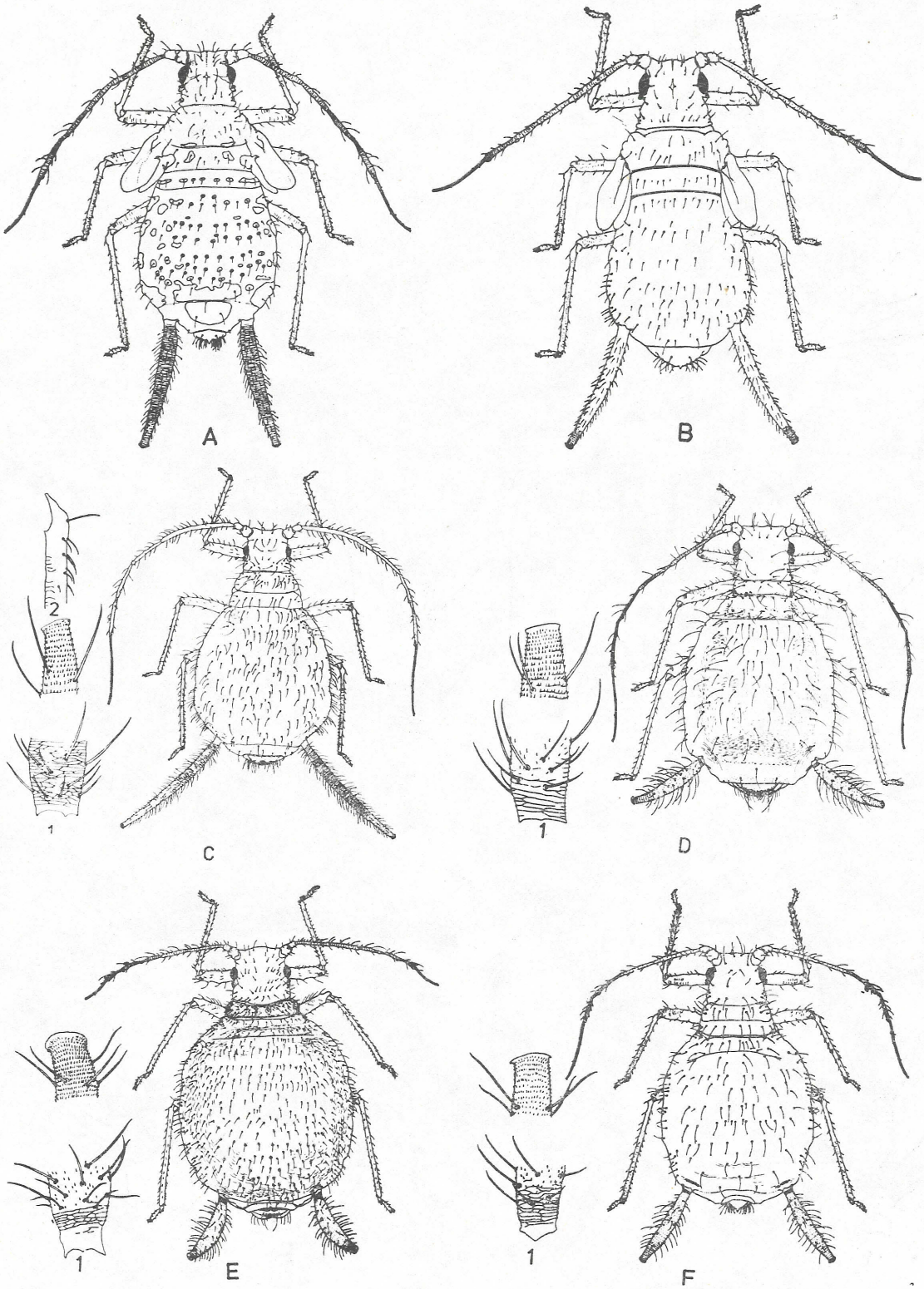

Fig. 1. *Greenidea* : nymphs, *decaspermi* (A), *brideliae* (B) ; apterous viviparous female, *viticola*(C), *formosana* (D), *kuwanai* (E) , *myricae* (F). siphunculus (1) , basal portion of hind tibiae (2) .

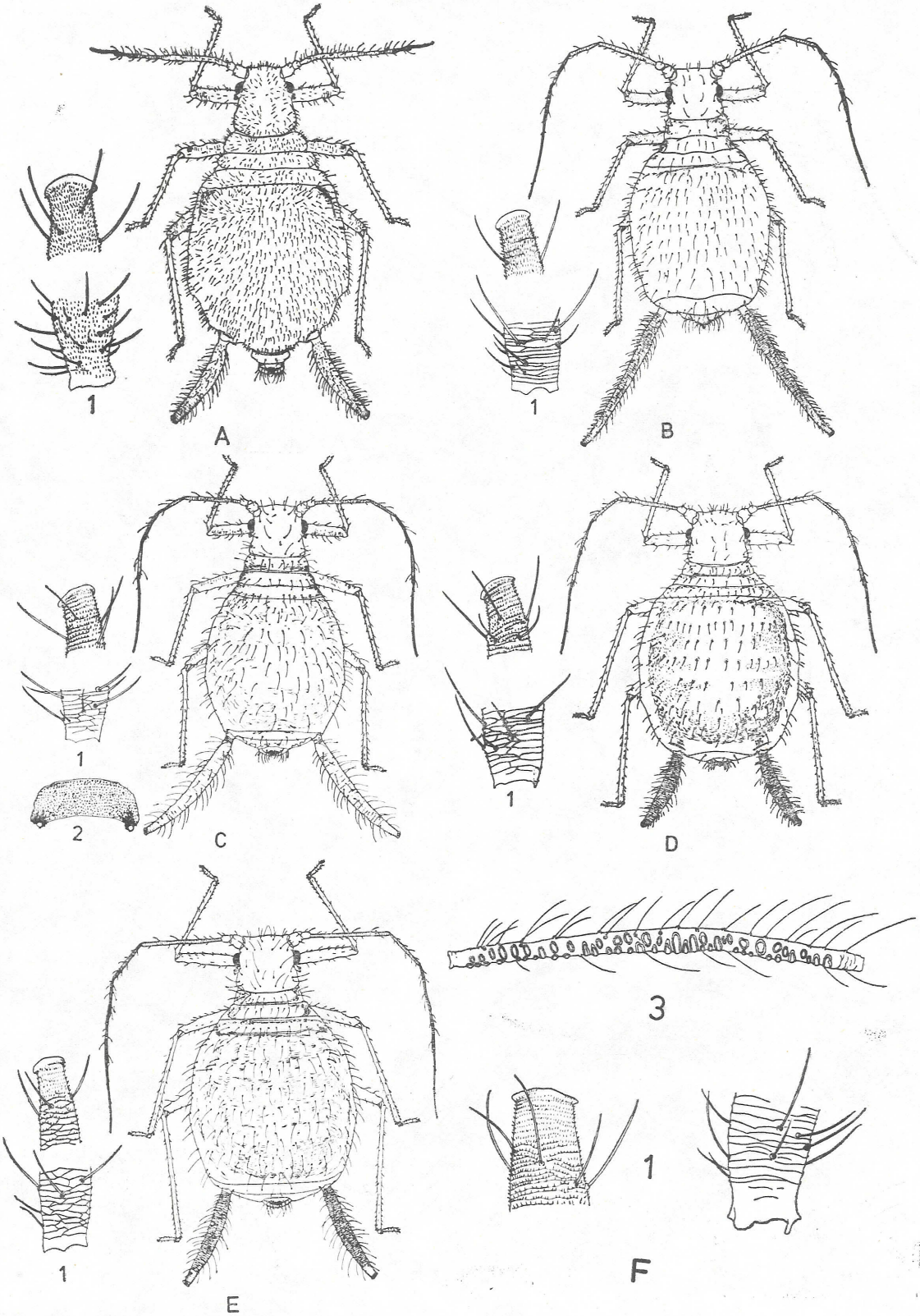

Fig. 2. *Greenidea* : apterous viviparous female, *nigra* (A) , *brideliae* (B) , *decaspermi* (C) , *ficicola* (D) , *mangiferae* (E) ; alate viviparous female of *mushana* (F) . siphunculus (1) , 3rd abdominal sternum (2) , 3rd antennal joint (3) .